UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: JUN 11 1989

SUBJECT Reilly Tar & Chemical Co./ 1980 Region V data

FROM: Robert E. Leininger

TO: Mike Kosakowski (WH 527)

Michael, as per your request, I am sending along a copy of the data that our laboratory analyzed in 1980. You can decide whether it should be sent to the experts for review and comment.

SEP 2 1980

Survey Request - Reilly Tar and Chemical, Incorporated
St. Louis Park, Minnesota

Original Signed by Sandra S. Gardebring
Sandra S. Gardebring
Director, Enforcement Division

William H. Sanders III, Director
Surveillance and Analysis Division

Reilly Tar and Chemical operated a creosote pole-treating and refining plant in St. Louis Park, Minnesota for approximately sixty years beginning in 1917. The operation was discontinued in 1971. Unfortunately, the drift aquifer was already heavily contaminated with creosote materials. Several of the underlying aquifers have also been contaminated with creosote compounds.

The U.S. Geological Survey (U.S.G.S.) is conducting a study of the hydrogeology in St. Louis Park, Minnesota. The U.S.G.S. study concentrates its analytic research in the drift and Platteville aquifers. The analyses includes polynuclear aromatic hydrocarbons (PAHs) and sometimes phenols and cresols after acid extraction.

Unfortunately, the major aquifer for potable water use in the St. Louis Park area is the Prairie du Chien-Jordan. Very limited data is presently available on the contamination of this aquifer. Therefore, the following analysis has been requested.

The samples to be analyzed were taken by Minnesota Department of Health (MDH) personnel from St. Louis Park municipal wells #4, 7, 9 and 15. They arrived at the laboratory on August 4, 1980. These wells were closed due to PAH contamination in 1978 and 1979. PAH analysis will be conducted by MDH. MDH extracted the 4 liter samples for base/neutral compound identification on August 20, 1980. The samples can be obtained from Mr. Bill Scrutin, MDH laboratory, FTS 776-5305, Minneapolis, Minnesota.

Please analyze the four extracted water samples for all identifiable compounds present at analytically significant concentrations in the acid fraction.

Because the analytic data will be used to support an ongoing enforcement action, it is necessary that chain of custody procedures be followed.

The analysis described below may be peformed by contractors, such as VIAR and/or FIT, wherever appropriate.

As soon as the results are available, please forward a copy to Melanie Toepfer, Engineering Section. Any questions regarding the survey should be directed to Melanie Toepfer, 886-6748.

Thank you for your assistance.

007685

cc: Curtis Ross,
Central Regional Laboratory

Bill Scrutin
Minnesota Department of Health

Marc Hult
U.S. Geologic Survey

Dennis Devlin
Hazardous Waste Task Force

Frank Biros
Hazardous Waste Task Force

bcc: Gardebring/Bryson
Fenner
Grimes/Berman/Leininger
Miner/Muno/Toepfer

8/22/80

MST 8.22.80

GES(for MG) 8/22/80

007096

LTOEPFER:nfs CL 6-6748 8/21/80

WEM 8/21/80

8/21/80 NB 8/22/80

ICAF 8/21

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE November 10, 1980

SUBJECT OTHER 890: Minnesota Department of Health (MDH)
Survey: Reilly Tar and Chemicals, Incorporated, St. Louis Park, MN

FROM Curtis Ross, Director Emilio Sturino Jr
Central Regional Laboratory

TO Melanie Toepfer, Engineering Section
Enforcement Division

Four Minnesota Department of Health (MDH) samples:

1. MDH #55619 - St. Louis Park, Municipal Well #4,

2. MDH #55620 - St. Louis Park, Municipal Well #15,

3. MDH #55621 - St. Louis Park, Municipal Well #7 and

4. MDH #55622 - St. Louis Park, Municipal Well #9

all, along with a spike, water blank and solvent blank have been analyzed for acidic substances in our laboratory using gas chromatography (GC) and computerized gas chromatography/mass spectroscopy (GC/MS).

Our interpretation of the analytical results is that none of the samples contained acidic components. Our detection limit for these samples was 4.0 ppb, estimated from the GC/MS response to d_{10}-phenanthrene and the extraction efficiency, 47%, calculated from a dichlorophenol-spiked sample.

We did, however, find that sample MDH #55619 contained 4-methyl-1-pentene-3-one, 1-hydroxymethyl-2-methyl cyclohexane, and an unknown in concentrations of 8, 4.0 and 4.0 ppb, respectively estimated from the response of d_{10}-phenanthrene.

All samples were extracted and concentrated (to 2 ml) by MDH prior to shipment to our laboratory. Therefore, our sample preparation consisted only of concentrating the samples from 2 ml to .4 ml.

Any questions regarding the analysis should be directed to Dr. Emilio Sturino Chief, Organic Laboratory Section, Central Regional Laboratory (312)353-9065.

cc: William H. Scruton
Analytical Services Section
Minnesota Department of Health
717 SE Delaware Street
Minneapolis, Minnesota 55440

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